

Amendments to the Claims

1. (Currently Amended) A flexible fuel hose having improved fuel vapor barrier properties, said fuel hose including a barrier layer forming an inner tubular structure, said barrier layer comprising: a blend of about 5 to 95 weight percent of a first fluoropolymer having a fluorine content of about 68 to 74%, said first fluoropolymer comprising a copolymer or terpolymer formed of two or more monomers selected from the group consisting of hexafluoropropylene, vinylidene fluoride and tetrafluoroethylene, and about 95 to 5 weight percent of a second fluoropolymer having a fluorine content of about 73 to 78%, said second fluoropolymer comprising a terpolymer formed by the copolymerization of hexafluoropropylene, vinylidene fluoride and tetrafluoroethylene, wherein said first fluoropolymer exhibits elastomeric characteristics and said second fluoropolymer exhibits thermoplastic characteristics; and a synthetic an elastomer material forming a second tubular structure around said barrier layer; said barrier layer comprising:

~~——a blend of about 5 to 95 weight percent of a first fluoropolymer having a fluorine content of about 68 to 74%, said first fluoropolymer comprising a copolymer or terpolymer formed of two or more monomers selected from the group consisting of hexafluoropropylene, vinylidene fluoride and tetrafluoroethylene, and about 95 to 5 weight percent of a second fluoropolymer having a fluorine content of about 73 to 78%, said second fluoropolymer comprising a terpolymer formed by the copolymerization of hexafluoropropylene, vinylidene fluoride and tetrafluoroethylene, wherein said first fluoropolymer exhibits elastomeric characteristics and said second fluoropolymer exhibits thermoplastic characteristics;—~~

~~——a second synthetic elastomer layer.~~

2. (Original) The hose of claim 1 further comprising a protective cover.

3. (Currently Amended) The hose of claim 2 ~~claim 1~~ further comprising a reinforcing layer between said elastomeric layer and said protective cover layer.

4. (Original) The hose of claim 3 wherein said reinforcing layer is a layer of fibers selected from the group consisting of polyamide fibers, polyester fibers, rayon fibers, glass fibers and cotton fibers.
5. (Original) The hose of claim 4 wherein said fibers are polyamide fibers.
6. (Original) The hose of claim 1 wherein said synthetic elastomer layer is selected from the group consisting of nitrile-butadiene rubber, epichlorohydrin rubber, and ethylene-acrylate rubber.
7. (Original) The hose of claim 6 wherein said elastomer layer is butadiene-acrylonitrile rubber.
8. (Original) The hose of claim 1 wherein said protective cover is a layer of synthetic elastomer selected from the group consisting of styrene-butadiene rubber, nitrile-butadiene rubber, chloroprene rubber, chlorinated polyethylene, chlorosulfonated polyethylene, epichlorohydrin-ethylene oxide copolymer, polyvinyl chloride, and blends thereof.
9. (Original) The hose of claim 8 wherein said protective cover is chlorinated polyethylene.
10. (Original) The hose of claim 1 wherein said barrier layer further comprises a conductive material.
11. (Currently Amended) A flexible fuel hose having improved fuel vapor barrier properties, said fuel hose comprising:
 - a first inner tubular structure comprising a barrier layer formed from a blend of about 5 to 95 weight percent of a first fluoropolymer having a fluorine content of about 68 to 74%, said first fluoropolymer comprising a copolymer or terpolymer formed of two or more monomers selected from the group consisting of hexafluoropropylene, vinylidene fluoride and tetrafluoroethylene, and about 95 to 5 weight percent of a second fluoropolymer having a fluorine content of about 73

to 78%, said second fluoropolymer comprising a terpolymer formed by the copolymerization of hexafluoropropylene, vinylidene fluoride and tetrafluoroethylene, wherein said first fluoropolymer exhibits elastomeric characteristics and said second fluoropolymer exhibits thermoplastic characteristics;

a second tubular structure formed around said first tubular structure, said second tubular structure comprising a synthetic elastomeric material selected from the group consisting of acrylonitrile-butadiene rubber, epichlorohydrin, ethylene-acrylate rubber, and mixtures thereof;

a reinforcing member which comprises natural or synthetic fibers selected from the group consisting of glass fibers, cotton fibers, polyamide fibers, polyester fibers, and rayon fibers; and

a protective cover which comprises a synthetic elastomer selected from the group consisting of styrene-butadiene rubber (SBR); butadiene-nitrile rubber ~~such as butadiene-acrylonitrile rubber~~; chlorinated polyethylene; chlorosulfonated polyethylene; vinylethylene-acrylic rubber; acrylic rubber; epichlorohydrin rubber ~~such as Hydrin 200~~; a copolymer of epichlorohydrin and ethylene oxide ~~available from DuPont ECO~~; polychloroprene rubber (CR); polyvinyl chloride; ethylene-propylene copolymers (EPM); ethylene-propylene-diene terpolymer (EPDM); ultra high molecular weight polyethylene (UHMWPE); high density polyethylene (HDPE); and blends thereof.

12. 13. (Currently Amended) A method for the manufacture of a flexible fuel hose comprising the steps of:

extruding a first tubular structure comprising a blend of about 5 to 95 weight of a first fluoropolymer having a fluorine content of about 68 to 74%, with about 95 to 5 weight percent of a second fluoropolymer having a fluorine content of about 73 to 78%, said first fluoropolymer comprising a copolymer or terpolymer formed of two or more monomers selected from the group consisting of hexafluoropropylene, vinylidene fluoride and tetrafluoroethylene, and said second fluoropolymer comprising a terpolymer formed by the copolymerization of hexafluoropropylene, tetrafluoroethylene, and vinylidene fluoride monomers, wherein said first fluoropolymer exhibits elastomeric characteristics and said second fluoropolymer exhibits thermoplastic characteristic;

extruding a layer of elastomeric material around said first fluorointerpolymer tubular

structure; and

applying a protective cover around said layer of extruded elastomeric material ~~second extruded tubular structure~~.

13. 14: (Currently Amended) The method of claim 12 ~~13~~ wherein said elastomeric material is butadiene-acrylonitrile rubber.

14. 15: (Currently Amended) The method of claim 12 ~~13~~ further comprising the step of applying a reinforcing layer on said layer of elastomer material prior to applying said protective cover.

15. 16: (Currently Amended) The method of claim 14 ~~15~~ wherein said reinforcing layer is a layer of fibers selected from the group consisting of polyamide fibers, polyester fibers, rayon fibers, glass fibers and cotton fibers.

16. 17: (Currently Amended) The method of claim 15 ~~16~~ wherein said reinforcing layer is a layer of polyamide fibers.

17. 18: (Currently Amended) The method of claim 14 ~~15~~ wherein said reinforcing fibers are applied on said second extruded tubular structure by spiraling.

18. 19: (Currently Amended) The method of claim 12 ~~13~~ wherein said protective cover is a synthetic elastomer selected from the group consisting of styrene-butadiene rubber, nitrile-butadiene rubber, chloroprene rubber, chlorinated polyethylene, chlorosulfonated polyethylene, epichlorohydrin-ethylene oxide copolymer, polyvinyl chloride, and blends thereof.

19. 20: (Currently Amended) The method of claim 18 ~~19~~ wherein said synthetic elastomer is chlorinated polyethylene.

20. ~~21.~~ (Currently Amended) The method of claim 12 15 wherein said protective cover is applied by a cross head extruder.